

## CLAIMS:

1. An isolated tissue for a vascular graft said tissue comprising granulation tissue produced on or around or in a molding support.
2. The isolated tissue of claim 1 wherein the granulation tissue is covered by non-thrombogenic mesothelial cells.
3. The isolated tissue of claim 1 or 2 wherein the molding support is a tubular molding.
4. The isolated tissue of claim 3 wherein the tissue is a tubular tissue section comprising living myofibroblasts within granulation tissue.
5. The isolated tissue of any one of claims 1 or 2 wherein the tissue is a substitute blood vessel or a portion thereof.
6. The isolated tissue of claim 5 wherein the substitute blood vessel is substitute artery.
7. A method of making isolated tissue for a vascular graft placing a molding support within a body cavity for a time and under conditions sufficient for granulation tissue to form on, around or in said moulding support.
8. The method of claim 7 wherein the granulation tissue is covered by non-thrombogenic mesothelial cells.
9. The method of claim 7 or 8 wherein the molding support is a tubular molding.
10. The method of claim 9 wherein the tissue is a tubular tissue section comprising living myofibroblasts within granulation tissue.

11. The method of any one of claims 7 or 8 wherein the tissue is a substitute blood vessel or a portion thereof.
12. The isolated tissue of claim 11, wherein the tissue is implanted as a substitute artery.
13. A method of producing substitute tissue comprising inserting a molding support within a body cavity for a time and under conditions sufficient for granulation tissue comprising myofibroblasts to form in, or around the molding support and removing said moulding support from the body cavity.
14. The method of claim 13 wherein the molding support is a tubular molding.
15. The method of claim 14 wherein the substitute tissue is a substitute blood vessel.
16. The method of claim 15 wherein the blood vessel is an artery.
17. The method of any one of claims 13 to 16 wherein the molding support is a biodegradable matrix.
18. A method for producing a substitute blood vessel comprising inserting into a body cavity of a recipient a molding comprising a tube for a time and under conditions sufficient for granulation tissue to form with myofibroblasts in, on or around the molding support and removing the molding from the cavity.
19. The method of claim 18 wherein the body cavity is the peritoneal cavity.
20. The method of claim 18 or 19 wherein the tubular molding is silastic tubing or an equivalent tubing.
21. The method of claim 20 wherein the diameter of the silastic tubing or an equivalent tubing is from about 0.1 mm to about 10 mm and the length of the tubing is from about 1 mm to about 1000 mm.

22. The method of claim 18 or 19 wherein the molding support is a biodegradable matrix.

23. An isolated substitute blood vessel maintained in a frozen state for use by a mammal in which it is produced said substitute blood vessel formed by placing a tubular molding within a body cavity for a time and under conditions sufficient for granulation tissue comprising myofibroblasts to form in, on or around the molding support and removing said tubular molding.

24. The isolated substitute blood vessel of claim 22 wherein the body cavity is the peritoneal cavity.

25. The isolated blood vessel of claim 22 or 23 wherein the mammal is a human or laboratory test animal.

26. The isolated blood vessel of claim 23 wherein the molding support is a biodegradable matrix.

27. A method of treating atherosclerosis or other blood vessel disease, comprising by-passing or replacing a damaged blood vessel by grafting a substitute blood vessel, said substitute tissue comprising myofibroblasts within granulation tissue produced on, in or around a molding support inserted into a body cavity of the subject being treated, removing said molding support and then grafting said tissue where required.

28. The method of claim 27, wherein granulation tissue is everted as it is removed from the mold support.

29. The method of claim 28, wherein the body cavity is the peritoneal cavity.

30. The method of claim 27, wherein the blood vessel is in a human subject or a laboratory test animal.

31. A prosthetic device which facilitates the provision of a foreign body to a body cavity, said device comprising:

an outer elongated tubular member having perforations or a permeable layer to permit passage of cells and fluid into and out of said tubular member;

an inner elongated member removably insertable in said outer elongated member and comprising a tube around which or part of which vascular or non-vascular tissue can grow; and

an external portion which is maintained on the skin surface or subcutaneously and through which the inner elongated member can be removed from said outer elongated member.

32. The prosthetic device of claim 31, wherein the device is a Tenckhoff Acute Peritoneal Dialysis Catheter.

33. The prosthetic device of claim 31, wherein said outer elongated tubular membrane is comprised of silicon.

34. The prosthetic device of claim 31, wherein said perforations are about 1.9558 millimeters.